

bb Set #48



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D5445-041
Job Sheet 174733



Part No: D5445-041

Job Qty: 1 ea

Part Name: Longitudinal Beam Assembly, LH



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 3/20/18

Job Tracking No:

Due Date: 4/20/18

Created By: Michelle Gagnon-Donovan

Type: SOLD

Description:

Note: DWG REV C SHEETS 1,4 IPP REV:A NEW ISSUE 16-07-07 JLM VERIFIED BY:DD IPP REV:B 17.01.10 AS PER DWG REV.C DD VERF:JLM IPP REV:C 17.11.15 REVISE AS PER INTUITIVE INSTRUCTION DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	4/20/18	4/20/18	0.00	0.00	Start Up Skid tubes		
100	CNC Bend Skid tubes	1 pcs	4/20/18	4/20/18	0.00	1.00	CNC Bend Skid tube		
110	QC	1 pcs	4/20/18	4/20/18	0.00	0.00	QC2 QC5		
120	Mill Conv	1 pcs	4/20/18	4/20/18	0.00	1.00	Mill Conv 1		
130	QC	1 pcs	4/20/18	4/20/18	0.00	0.00	QC2		
140	QC	1 pcs	4/20/18	4/20/18	0.00	0.00	QC8		
150	HandFinish	1 pcs	4/20/18	4/20/18	0.00	0.50	HandFinish1		
160	QC	1 pcs	4/20/18	4/20/18	0.00	0.00	QC7		
170	Small Fab	1 pcs	4/20/18	4/20/18	0.00	0.67	Small Fab		
180	QC	1 pcs	4/20/18	4/20/18	0.00	0.00	QC5		
184	Skid tubes	1 pcs	4/20/18	4/20/18	0.00	0.50	Skid tubes-3		
186	QC	1 pcs	4/20/18	4/20/18	0.00	0.00	QC5		
190	Powdercoat	1 pcs	4/20/18	4/20/18	0.00	0.20	Powdercoat1		
200	QC	1 pcs	4/20/18	4/20/18	0.00	0.00	QC3		
210	HandFinish	1 pcs	4/20/18	4/20/18	0.00	0.50	HandFinish4		
220	QC	1 pcs	4/20/18	4/20/18	0.00	0.00	QC5		
230	Packaging	1 pcs	4/20/18	4/20/18	0.00	0.00	Packaging3		
240	QC21-SA	1 Ea	4/20/18	4/20/18	0.00	0.00	QC21		

Part Op 100 - BEND/CUT AS PER DWG

Descriptions: 120 - -MILL/DRILL/C'SINK AS PER DWG. -Insure proper orientation -DEBURR

170 - INSTALL NUT PLATES AS PER DWG

184 - 1- Pick (4) D4720-1 space for each beams and chemical convert them. 2- Swage x-bolt spacers as per dwg. Trim off access material as required. 3- After swaging, ream x-spacer hole if necessary to finish size. 4- Touch up alodine after swaging. 5-INSTALL END CAPS

190 - ***MASK NUT PLATE HOLES*** START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____

210 - SEAL END CAPS WITH SIKAFLEX AS PER NOTE 11

SCRAP



Container No: S064276



Part: D5445-041

Job No: 174733

Serial No/Batch: S064276

Revision: C

Inspector:

Dart Aerospace Ltd.
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CANADA
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www.dartaerospace.com

Date: 04/24/18

QAFCS

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M6061T6TR1.5X1.0W125	6061-T6 Rect Tube 1.5 X 1.0 X .125W	6 ft (6 ea)	90-Start up Operation	
CR2672-3-(03)	Cherry Rivet	8 Ea (8 ea)	170-Small Fab	
MS21059-4	Nut Plate	3 Ea (3 ea)	170-Small Fab	
MS21061L4	Nutplate	1 Ea (1 ea)	170-Small Fab	
D4720-1	Spacer	4 Ea (4 ea)	184-Skidtubes	
D5445-043	End Cap Assembly	2 Ea (2 ea)	184-Skidtubes	
MS24694-S3	Screw	4 Ea (4 ea)	184-Skidtubes	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M6061T6TR1.5X1.0W125	6	48	0
170-Small Fab	CR2672-3-(03)	8	11	0
	MS21059-4	3	8	0
	MS21061L4	1	4	0
184-Skidtubes	D4720-1	4	402	0
	D5445-043	2	30	0
	MS24694-S3	4	59	0

Part Specifications

Specifications could not be found.

Plex 3/20/18 3:32 PM Dart.Gagnon.Michelle

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 174733
MAR 21 2018

ITEM	QTY -041	P/N	DESCRIPTION
	X	D5445-041	LONGITUDINAL BEAM ASSEMBLY, LH
1	2	D5445-043	END CAP ASSEMBLY
2	4	D5445-5	SPACER
3	8	CR2672-3-(03)	RIVET CHERRY, CSK
4	1	D5445-1	LONGITUDINAL BEAM, LH
5	3	MS21059-4	NUT PLATE
6	1	MS21061L4	NUT PLATE
7	4	MS24694-S3	SCREW, CSK 100°
8	A/R	SIKAFLEX-241/-291	SEALANT

DETAIL A

DETAIL B

D5445-041 LONGITUDINAL BEAM ASSEMBLY, LH

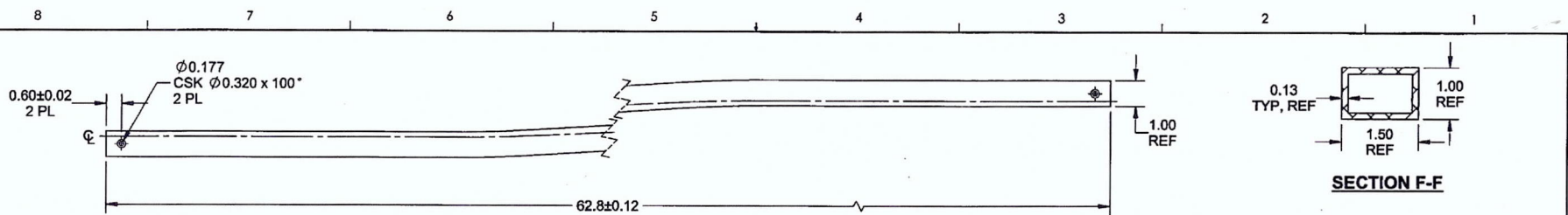
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 3.50 lbs
- 8) SWAGE TO $\phi 0.313$ THRU PER QSI 002 4.2
- 9) TRIM/GRIND FLUSH PER QSI 002
- 10) REAM THRU SPACERS USING $\phi 0.313$ REAMER
- 11) SEAL END CAPS WITH SIKAFLEX-241/-291
- 12) MASK HOLES PRIOR TO POWDER COAT

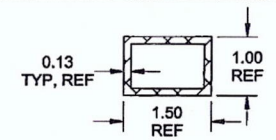
RELEASED
2017-03-22
EGW 17-535

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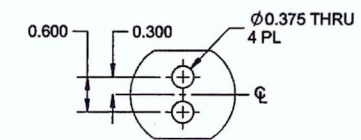
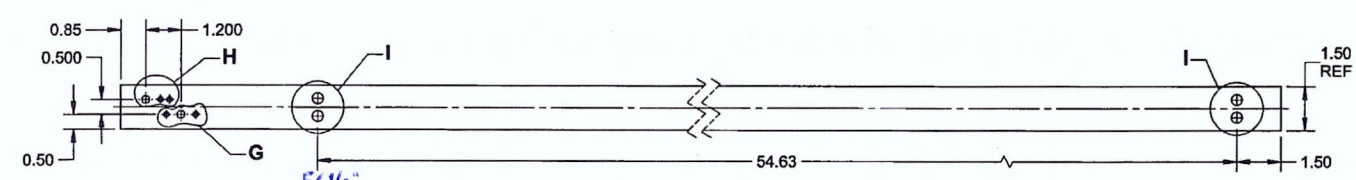
C	2.05 WAS 1.45 (ZN C1-4 & C2-5); REVISE -3F (ZN C5-6)	RF	17.02.09
B	REDESIGN -1/-2/-041/-042 (ZN A4-1, A4-2, B4-4, B4-5); ADDED -5 (ZN B4-7), REVISE BOM & NOTES (ZN A8-1, A8-2, D3-1, D3-2)	RF	16.11.18
A	NEW ISSUE	RF	16.05.24
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	WK	DRAWING NO.	REV. C
MFG. APPR.	JLM	D5445	SHEET 1 OF 7
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	LONGITUDINAL BEAM ASSY	NTS
DATE	17.02.09	COPYRIGHT © 2016 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



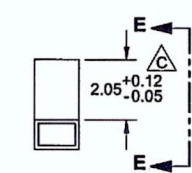
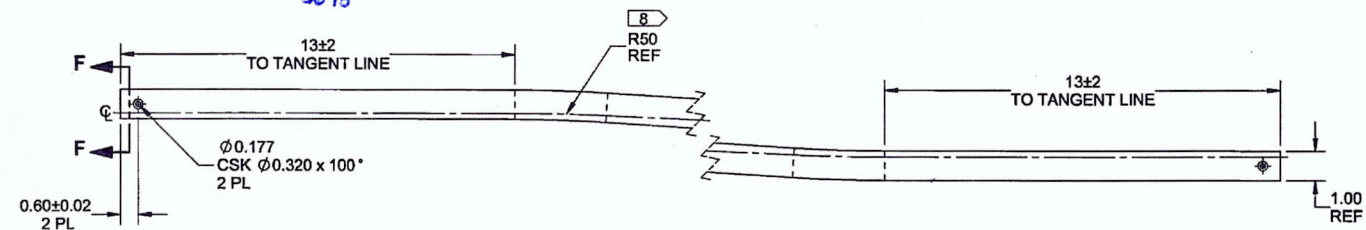
VIEW E-E



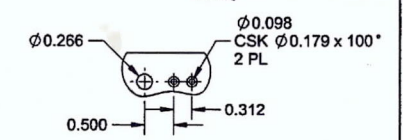
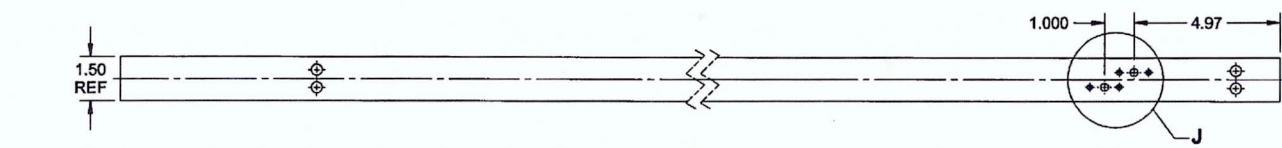
SECTION F-F



DETAIL I

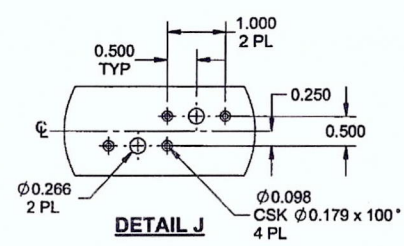


DETAIL H



DETAIL G

D5445-1 LONGITUDINAL BEAM, LH



DETAIL J

- NOTES:
- 1) MATERIAL: POSSIBLE VENDOR McMASTER CARR, P/N 6546K38, 6R IN LENGTH
6061-T6 RECTANGULAR TUBE 1.5" x 1.0" x 0.125" WALL
PER ASTM B221, YIELD STRENGTH: 35,000 psi
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 3.43 lbs
 - 8) BEND RADIUS NOT CRITICAL

RELEASED
2017-03-22

APPROVED

APPROVED

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	WK	DRAWING NO.	REV. C
MFG. APPR.	JLM	D5445	SHEET 4 OF 7
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	LONGITUDINAL BEAM ASSY	NTS
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DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>174733</u> Part No. <u>D5445-041</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☒</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
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Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date : <u>18-05-10</u>		Step #: <u>120</u>		QTY Effective : <u>1</u>		MRB (QSI042) Approval																			
Description Work Order Deviation Operator(JV) accidentally moved hole position lever handle on milling machine with leg without noticing.				Disposition Scrap destroy no replace.																					
				Completed By <u>18-05-10</u>		Lead hand / Supervisor Approval Verification <u>18-05-10</u>																			
				QC / QA Coordinator Approval <u>18-05-10</u>																					

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☒	Operator ☒	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	☒ Over/Under tolerance		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	☒ Drill Holes	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐						
Misidentified ☐	Past Due ☐	OTHER : _____					